U. S. AND NORWEGIAN MILITARY OFFICERS' PERSONALITY TRAITS, ATTITUDES, VALUES AND LEADERSHIP STYLES: A CROSS-NATIONAL COMPARISON

Terje Meyer Nilssen

LIBRARY
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA 93940

NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

U.S. and Norwegian Military Officers'
Personality traits, Attitudes, Values
and
Leadership styles:
A Cross-National Comparison

by

Terje Meyer Nilssen
Lieutenant-Commander, Royal Norwegian Navy

DECEMBER 1975

Thesis Advisor: John D. Senger

Approved for public release; distribution unlimited.

T172178

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) U.S. and Norwegian Military Officers' Personality traits, Attitudes, Values and Leadership styles: A Cross-National Comparison		5. TYPE OF REPORT & PERIOD COVERED Master's Thesis: December 1975 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Terje Meyer Nilssen Lieutenant-Commander, Royal Norwegian Navy		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		12. REPORT DATE December 1975 13. NUMBER OF PAGES 75
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Naval Postgraduate School Monterey, California 93940		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Cross-Cultural, Cross-National, Personality Traits, Attitudes, Values, F Scale, Mach V Scale, Study of Values, Edwards Personal Preference Schedule (EPPS), LPC Scale

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

See the following page

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 68 IS OBSOLETE
S/N 0102-014-6601 |
(Page 1)

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

ABSTRACT

The California F Scale, the Mach V Scale, the Study of Values, the Edwards Personal Preference Schedule, and the Least Preferred Coworker Scale were given to a group of male Norwegian military officers (24 cases). The results obtained on the 25 variables that the battery comprised were compared with the results obtained on the same instruments from groups of male U.S. military officers (307 cases).

The U.S. officers were found to score significantly higher (at the .05 level) on religious values as measured by the Study of Values than did the Norwegian group.

The U.S. group also scored significantly higher on Achievement, Exhibition, Change, and Heterosexuality, as measured by the EPPS.

The Norwegian group was found to score significantly higher than the U.S. group on Authoritarianism, as measured by the F Scale. The Norwegian group also scored significantly higher than the U.S. group on Deference, Order, Nurturance, Endurance, and Aggression, as measured by the EPPS.

U.S. and Norwegian Military Officers' Personality Traits, Attitudes, Values, and Leadership Styles: A Cross-National Comparison

by

Terje Meyer Nilssen
Lieutenant-Commander, Royal Norwegian Navy

Royal Norwegian Naval Academy 1968

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
DECEMBER 1975

LIBRARY
GRADUATE SCHOOL
Y, CALIFORNIA 93940

ABSTRACT

The California F Scale, the Mach V Scale, the Study of Values, the Edwards Personal Preference Schedule, and the Least Preferred Coworker Scale were given to a group of male Norwegian military officers (24 cases). The results obtained on the 25 variables that the battery comprised were compared with the results obtained on the same instruments from groups of male U.S. military officers (307 cases).

The U.S. officers were found to score significantly higher (at the .05 level) on Religious values as measured by the Study of Values than did the Norwegian group.

The U.S. group also scored significantly higher on Achievement, Exhibition, Change, and Heterosexuality, as measured by the EPPS.

The Norwegian group was found to score significantly higher than the U.S. group on Authoritarianism, as measured by the F Scale. The Norwegian group also scored significantly higher than the U.S. group on Deference, Order, Nurturance, Endurance, and Aggression, as measured by the EPPS.

TABLE OF CONTENTS

		Page
I.	INTRODUCTION	11
II.	THEORETICAL CONSIDERATIONS	18
	A. NATURE OF CROSS-NATIONAL RESEARCH	18
	1. General	18
	2. Problems of Verbal Stimulus Equivalence	19
	3. Problems of Reliability and Validity	21
	a. Reliability	21
	b. Validity	21
	B. THE NATURE OF THE PROBLEM	22
	1. To What Extent Can Cultural Differences Be Expected?	22
III.	METHOD	27
	A. DESIGN OF STUDY	27
	1. Selection and Preparation of Instruments	27
	a. The California F Scale	28
	b. The Mach V Scale	32
	c. The Study of Values	35
	d. The Edwards Personal Preference Schedule	39
	e. The Least Preferred Coworker Scale	44
	B. A NOTE ON TRANSLATION	47
	1. General	47
	2. Specific Problems	48

C. SUBJECTS AND ADMINISTRATION ---------- 49

1. The U.S. Sample ---------- 49

2. The Norwegian Sample ---------- 51

IV RESULTS AND DISCUSSION ---------- 52

A. RESULTS AND DISCUSSION ---------- 52

1. General ---------- 52

2. Results obtained from the California F Scale ---------- 53

3. Results Obtained from the Mach V Scale ---- 54

4. Results obtained from the Study of Values ---------- 54

5. Results obtained from the Edwards Personal Preference Schedule ---------- 58

6. Results obtained from the Least Preferred Coworker Scale ---------- 60

V. ANALYSIS OF RESULTS---------- 62

A. Analysis ---------- 62

1. General ---------- 62

2. Analysis of specific Results ---------- 62

3. Caveats ---------- 66

VI SUMMARY AND CONCLUSIONS ---------- 68

A. SUMMARY ---------- 68

B. CONCLUSIONS ---------- 62

BIBLIOGRAPHY ---------- 70

INITIAL DISTRIBUTION LIST ---------- 76

LIST OF TABLES

Table		Page
1	Mean F Scale Scores and Standard Deviations for U.S. and Norwegian Groups	53
2	Mean Mach V Score and Standard Deviations for U.S. and Norwegian Groups	54
3	Mean SOV Scores and Standard Deviations for U.S. and Norwegian Groups	56
4	Means and Standard Deviations of the EPPS Variables for U.S. and Norwegian Groups	59
5	Mean LPC Score and Standard Deviations for U.S. and Norwegian Groups	60

LIST OF EXHIBITS

		Page
EXHIBIT 1	Characteristics of Machiavellianism and Persons scoring high on the Mach Tests	35
EXHIBIT 2	Characteristics of Spranger's six Types	37
EXHIBIT 3	EPPS Personality Variables with Description of Characteristics	43
EXHIBIT 4	Profile of Values for U.S. and Norwegian Groups	57

ACKNOWLEDGEMENTS

Without the assistance and cooperation of many people it would not have been possible to carry out this study. The author is therefore deeply obliged to many for the help and understanding he received in the process. In particular, the assistance of the following persons is gratefully acknowledged:

To Professor John D. Senger, my thesis advisor, for many suggestions, wise counsel, enthusiastic encouragement, and for making the data for the U.S. group available for this study. Also for his stimulating classes in Individual Behavior which the author has been privileged to attend.

To Professor R. A. Weitzman, my second reader, for good advice and very many helpful suggestions. Also for his enlightening teaching in the fields of psychological testing and statistics.

To Captain Bj. Grimstvedt, RNoN., for making the initial arrangements so that the tests could be administered in Norway.

To Lieutenant Commander Ove Steen-Olsen, RNoN., for organizing the administration of the tests in Norway.

To Lieutenant Commander Karsten Haukeli, RNoN, for his kind assistance in examining the translated versions of the tests.

And last, but not the least, to the officer students at the Naval Postgraduate School and at the Military Staff

Colleges in Norway who took the tests. Their kind cooperation is greatly appreciated.

I. INTRODUCTION

A. GENERAL

Throughout history, man has been trying to gain comprehensive understanding of his own kind. Especially has personality been a subject of interest. With the growth and recognition of psychology and other social sciences, this interest has only increased in recent decades. Although "the key" to personality has not yet been found, dozens of plausible theories, each backed with impressive amounts of research, have been presented only in the last 40 - 50 years.

These theories and underlying research have been stimulated by various motives, three of which, it must be allowable to contend, have been more prominent than others, namely: the desires to control, to understand and to predict human behaviour.

The personality of an individual represents the stable aspects of his behaviour. Personality is the continuity of the individual (London, 1974, p. 339).

Closely linked to the concept of controlling the behaviour of others are leadership and leadership styles, another subject area that has been subject to scientific scrutiny in recent decades. As in the case of personality research, no one has, as yet, been able to claim the honour of discovering the only and correct approach to the problem of leading other people. Had the single key to personality

- if such there be - been found, it would have been reasonable to assume that this discovery would also have solved problems pertaining to leadership theory. However, there seems to be no such single key - no single truth. This may be the reason why none of the multitude of personality theories put forward seems to be telling more than part of the truth. On the other hand, since all such theories were made by real people about real people, there seems to be something about any personality theory that rings true and seems relevant to any person (Psychology Today, 1972, p.412).

To gain comprehensive understanding of man and his personality organization, it seems necessary to take some sort of a "bits and pieces" approach, i.e., utilize what may be deemed adequate in several theories. There are many to choose between, e.g., Dynamic Personality Theories, Organismic and Trait-Factor Personality Theories.

The term trait means characteristic, and traits are labeled after people's characteristic reactions to certain situations. It is possible to describe the personality of most people in terms of many traits. A personality description in terms of many traits is called a "personality profile " (London, 1974, p.368).

If a trait is dominant in a person to such an extent that it influences the overall behaviour, the individual

will be classified as a type. The term "type," according to London, is a much broader, more comprehensive notion than trait. "People have traits; they are types " (Op. cit., p.343).

A person's disposition to feel, think and act in a certain way is referred to as an attitude. The term is quite comprehensive, and terms like beliefs, opinions, values and prejudices, which may be classified as special kinds of attitudes, are contained within it.

To gain knowledge about personalities, tests have been developed. In conventional psychometric terminology, according to Anastasi, "personality tests" are instruments for the measurement of emotional, motivational, interpersonal and attitudinal characteristics, as distinguished from abilities (1968, p.437).

Often personality tests have been constructed within the framework of one or another personality theory, and since personality theories are plentiful, so is the number of available personality tests. The ample supply of different testing instruments does not indicate that the use of personality tests is fully accepted, and without controversy. Nevertheless, it may be contended that the field in which the psychological profession has achieved the greatest practical application of their work is the very field of psychological testing, and when it comes to assessment of personality, this can

probably most effectively and consistently be done through tests, however infested with shortcomings they might be.

Therefore, if personality traits, attitudes, values, and interests are to be examined, the conclusion must be that this can most effectively and consistently be done through testing.

The urge to know about the personality of man does not stop with the individual. It is therefore almost impossible to avoid questions as to what extent people or groups of people differ with respect to personality dimensions. Another question along this line that is receiving increased attention from social scientists, is to what extent race, culture and nationality determine the development or impairment of personality and related traits.

This study is undertaken to investigate possible differences in traits, attitudes, interests, and other personality dimensions across national (and cultural) borders.

B. PURPOSE OF THIS STUDY

It is the firm belief of this writer that in addition to mere insight, knowledge of personality and related traits and the ensuing behaviour enhance interpersonal and intergroup relations and communication. This is achieved through greater acumen and

understanding. Although, as pointed out above, the whole truth as to personality formation and organization has not yet been found; the fragments of knowledge that may ensue from further study can thus only be to the good. The aim must be to replace mysteries and biases with factual knowledge; to replace distrust and closedness - which result from not knowing - with confidence and openness - both fruits of knowing. The resulting improved relations are not confined to one group, people or culture, but can very well be extended across national and cultural borders.

On several occasions during the last half century, the United States of America have entered into political, military, and other forms of alliances with other nations, some of which differ to a great extent with respect to races, culture, history and climate. Some allies differ only little, and some even represent the cultural foundation upon which the U.S. society is built.

Over the years some of these alliances have ended in catastrophe, others are still being maintained, but in somewhat strained forms. In some instances it is hard to find plausible reasons why originally friendly and often mutually beneficial relations should undergo such unexpected developments.

Lack of knowledge and recognition of differences in national or cultural personality traits and values with

resulting poor interaction and impaired communication are the explanations offered by the present writer. It should be noted, however, that this is not a one-way road and that in most cases both parties involved are to share the blame.

In political and military alliances, the diplomats and the military people, especially military officers, are the groups which are most likely to be in situations of frequent interaction and communication with their allied counterparts. Diplomats are usually trained for these kinds of situations - it is their profession. This is not usually the case with military officers. It would therefore be of interest to find out whether military officers of two countries differ as far as personality dimensions and behaviour are concerned. As alluded to above, knowledge in this field could help improve communication and relations in general. This would usually be very beneficial to both parties in peace-time; in case of war the payoffs are assumed to be even greater.

The purpose of this study is to perform a descriptive comparative analysis between groups of male U.S. and male Norwegian military officers. A battery of paper-and-pencil psychological tests will be used to this effect. No attempt will be made to make inferential explanations in terms of relationships among

independent, dependent and cultural variables.

Although little or no inference can be made from this study to groups in the two countries beyond the two actually investigated, it is hoped that this study can shed some light on human factors that may play important roles in the ongoing development of mutually respectable relations and ever improving communication between the two countries in question.

It is also hoped that this study would encourage further research in this area. However, both of these hopes are rather ambitious, and if they fail to come true, the investigator possesses vanity enough to assume that the study, in its own limited way, will augment existing knowledge.

II. THEORETICAL CONSIDERATIONS

A. NATURE OF CROSS-NATIONAL RESEARCH

1. General

As already alluded to, the comparison of people, or groups of people from different nations or cultures, is playing an increasingly important role in social science.

The goal of such comparative studies is usually to discover and (if possible) explain differences of behaviour and development among human beings, and thus to achieve a deeper understanding of man as a species (Manaster & Havighurst, 1972)[1].

If such a study is carried out in more than one country, the variable "country" makes it a cross-national study. However, it is generally true that countries differ to greater or lesser extents in their basic culture; therefore, cross-national studies are often referred to as cross-cultural studies; but since it is not necessary to cross national borders in order to traverse cultural boundaries, the terms cross-national and cross-cultural should not be used interchangeably; rather, cross-national research should be

---

[1] The present writer draws in the following heavily on these two authors, whose text on cross-national research methodology was found to deal particularly adequately with the types of problems encountered in this study.

regarded as one form of cross-cultural research.

Also, one would like to emphasize the cross-national aspect of the present study; therefore, the term cross-national will have preference throughout the remainder of this paper.

Cross-national studies are typically plagued with difficulties not ordinarily encountered in intra-national research. These difficulties include problems of methodology, of language equivalence and translation, and of cultural and national outlook and biases. Time, cost and geographical distance are also factors of concern.

2. Problems of Verbal Stimulus Equivalence

Of all the problems that arise when verbal psychological instruments are to be used for cross-national/cultural comparison, the "language problem" is probably the most eminent. This is so because language is an extremely complex element of culture, and various cultures vary to a great extent in their use of language. Most writers on the subject seem to agree that in preparing instruments for use across cultures or nations, the language difficulties draw attention to issues which must be dealt with (See e.g., Scheuck, 1968, pp.176-209).

The first question the investigator has to answer is whether to translate the instrument(s) or not. Some investigators have chosen not to (e.g., Ghei, 1966) when

the subjects to be tested had an understanding of the test language. Obviously, this decision is easy in cases where verbal tests are to be used to test groups which have no mastery of the test language: then the instrument(s) have to be translated. However, in the present case, in which the foreign group to be tested consists of military officers with a high level of education and generally such a good command of English that they could possibly be classified as bilingual, the decision to translate or not to translate is far from straightforward. However, Anastasi resolved the dilemma for the present investigator, as she convincingly argues what is taken to be a case for translation. She contends that the effects of bilingualism are varied and complex and that, although a bilingual person may have sufficient mastery of the language to communicate on ordinary matter and even use the language at school, such a person may lack the monolingual's vocabulary range, verbal fluency, or facility in handling verbal relations in that language (1968, p.243).

Therefore, it seems as if translation of test instruments - ensuring comparability of meaning - is highly advisable also when it comes to testing bilingual groups, despite their apparent mastery of the language in which the instruments originated.

3. Problems of Reliability and Validity

a. Reliability

There are essentially two types of reliability. One is the tendency of the instrument itself, or of the items that make up the instrument, to produce the same results in different parts of the test or over time. The other is the tendency of the scoring procedure to assure that the data are interpreted and scored in a consistent manner, according to some defined theory or scale (Manaster & Havighurst, 1972, p. 438).

By using standardized test instruments and scoring procedures, most of these problems can be eliminated. In the present study the investigator followed standard scoring procedures and actually scored the responses himself; thus a very high degree of scorer consistency is assumed to have been achieved.

The problem of instrument reliability is inconsistency and instability of response. In the present study it is assumed that the instruments retained to a very high degree their original reliability in the translated versions.

b. Validity

"The problem of validity is the problem of what the data indicate," says Brown, (1965, p. 438) and Nunnally states that in a very general sense, "a measuring instrument is valid if it does what it is intended

to do . . ." (1967, p.75) In the study at hand only existing instruments have been selected for use, and, as was the case for reliability, it is assumed that the instruments retained their validity after having been translated. This applied to construct validity as well as face and content validity.

B. THE NATURE OF THE PROBLEM

1. To What Extent Can Cultural Differences be Expected?

According to Manaster and Havighurst, (1972, p.3) any two modern nationality groups differ completely in few behaviours or beliefs. "We expect their members to speak different languages and to play different forms of sports, such as football and soccer," they maintain, "but in most areas of behaviour and belief we expect them to be similar. What differences do exist will generally register only as a few points on the social-psychological instruments used to explore differences between two groups " (1972 p.3). They also list certain factors within the organism and within human society which tend to make all members of the human race alike in some ways of behaving and believing.

The factors which contribute heavily to the similarities among all human beings include (Op.cit.,p.3):

- Biological drives. Common drives such as sex and hunger drives will lead to somewhat common behaviour in different cultures.
- Mental maturation, i.e., the biological growth of the mind provide the basis for speaking, counting, reading and other cognitive functions.

"Except for language differences," says Manaster and Havighurst, "the differences between modern societies in mental development are relatively small," (1972 p.3).

Factors which tend to produce even greater behavioural similarities among some groups of twentieth-century human beings, according to the above-mentioned authors, include (Op.cit., p.4):

- The experience of growing up in a family
- The experience of growing up in a certain social class
- Living in an urban-industrial society

Consideration of these similarities of human experience leads the two authors to the conclusion that cultural differences among most modern industrial and urban societies are not great. "We must examine minor differences," they maintain (1972, p.4).

In any group and culture there also seem to be factors which tend to make all members different from

one another in some ways of behaving and believing. Large intracultural variability in the characteristics one tries to measure should be expected. In fact, the differences within a cultural group are likely to be large compared with the differences between cultural groups.

Again, according to Manaster and Havighurst, (1972 p.5) two cultural groups differ in average score on a social-psychological test, but they differ very little in range of scores or in the shape of the distribution of scores. Therefore, in cross-national/cultural comparison it is usual to compare averages rather than standard deviations and ranges.

Behaviours, beliefs and other attributes of a cultural or national group, which are typical of this group, but only rare or altogether absent in other groups serve to differentiate the groups. Speaking Norwegian is in our example a behavior common to the Norwegian group, while speaking English is common to the U.S. group. It is therefore possible to distinguish the groups by their language or nationality, but such attributes are not normally distributed in the groups.

To be able to carry out meaningful comparative analysis among groups, however, one has to direct one's attention to behaviours and attitudes which are present in all or nearly all groups under investigation,

behavior which can be measured in terms of frequency or intensity and which have quasi-normal distributions in most groups.

"The difference between social groups then, appears in the mean scores on measuring instruments..." (Op.Cit., p.6).

The predominant culture of the U.S.A. and the Norwegian culture are ostensibly very similar, and since comparative studies between the two cultures along psychological dimensions are rare, if not absolutely absent in the literature, there is no justification for assuming that the two cultures are different to such an extent that the difference will show up significantly on psychological instruments. The null hypothesis to be tested can therefore be stated as follows:

H_0: There is no difference between the group of male U.S. military officers and the group of male Norwegian military officers as measured by the California F Scale, the Machiavelli V Scale, the Study of Values, the Edwards Personal Preference Schedule, and the Least Preferred Coworker Scale.[1]

At this point it is seen as an exercise in futility to try to speculate on the strength and

---

1 The listed instruments will be explained and evaluated in Part III of this paper.

direction of any alternative hypothesis. The underlying assumption is, of course, that if any difference on any of the 25 variables[2] in question is found to be significant, it could be different in either direction. Also, the magnitude of such a difference is seen as unpredictable.

---

2 The EPPS consistency score is included in this figure.

III. METHOD

A. DESIGN OF STUDY

1. Selection and Preparation of Instruments

The instruments for measuring personality characteristics differ from instruments for measuring abilities in that the former typically have no clear-cut correct or incorrect answers. Although objective personality tests have specific questions and answers, (as opposed to projective tests) the content of the individual questions and the actual answers are normally not so important. The response and/or answer patterns are typically what matters.

For the present study it was decided to use only objective instruments, and a battery was composed from five such instruments. All of the instruments selected were originated in English, and since no Norwegian version of any of the instruments was available, the instruments were translated and reproduced by the investigator himself.

The battery comprised the following instruments:

- The California F Scale (F Scale)
- The Machiavelli V Scale (Mach V)
- The Study of Values (SOV)[1]

---

1 Translated and reproduced by permission of Houghton Mifflin Company, Boston. Copyright ©, 1960, by Gordon W. Allport, Philip E. Vernon and Gardener Lindzey.

- The Edwards Personal Preference Schedule (EPPS) [1]

- The Least Preferred Coworker Scale (LPC Scale)

These particular instruments were selected because they purport to measure the traits, attitudes and other personality dimensions which were of interest to this investigator. The adequacy of the instruments in cross-national research also had to be considered in the selection process.

a. The California F Scale

One of the instruments developed by Adorno et al., and published in the "Authoritarian Personality," (1950) was the F Scale. The authors of the "Authoritarian Personality," refer to the F Scale as "The Implicit Antidemocratic Trends or Potentiality for Fascism (F) Scale." So far as one can determine they never refer to the F Scale as the Authoritarianism scale in their book. However, since the F Scale is supposed to identify the kind of personality the book is talking about, it is reasonable to suppose that the scale could also be correctly called the "Authoritarianism Scale " (Brown, 1965 p.468). This is also the name used in some subsequent reports (Christie, 1954). The scale is also

---

[1] Translated and reproduced by permission. Copyright © 1953, The Psychological Corporation, New York, N.Y. All rights reserved.

called the California F Scale (e.g. Meade and Whittaker, 1967, p.3).

The F Scale has become a widely known personality scale, and since its publication in 1950 it has been used in literally hundreds of investigations (Rokeach, 1960, p.12). The scale purports to measure authoritarianism on the right.

The initial scale was composed of 38 items which were divided into nine categories. The categories did not prove to be independent, and the scale can be considered to treat one general factor (Melvin, 1955). The version of the scale that was used for the present study is composed of 28 items, (from Forms 45 and 40, see Adorno, 1950), and is identical to the one presented in Appendix B of The Open and Closed Mind (Rokeach, 1960) with the exception of item 23, which was deleted in both the English and the Norwegian version of the scale. The items are presented in Likert-type format, i.e., responses can be marked from strong agreement (+3) to strong disagreement (-3). No neutral position is provided. When scoring the scale +3 is given the value of 7, +2 the value of 6, +1 the value of 5, -1 the value of 3, -2 the value of 2, and -3 the value of 1. The average score on the scale can therefore range from 1 to 7 with 4 as a theoretical neutral point, which permits scoring of omitted responses.

All of the items are written so that agreement with them signifies agreement with an authoritarian statement. This gave rise to the issue of response set or acquiescence set, and left the F Scale open to severe criticism. Several scientists have put a considerable amount of research effort into this issue (Cohn, 1953; Bass, 1955; Messick and Jackson, 1957; and Couch and Keniston, 1960).

Brown, in analysing it concluded that: "It seems to be certain that a tendency to acquiescence has been a factor in standard F Scale scores but not the major factor " (1965, p.514). Further, according to Manaster and Havighurst, "The F Scale appears to be an independent valid measure of the general construct it purports to measure, but the acquiescence set interpreted as a function of individual personalities remains a significant factor " (1972 p.50). "Having established that response sets function with this instrument in the United States, it is necessary to assume," the two authors contend, "that they function in the same proportion in other cultures if we intend to compare cultures with this instrument without additional analysis comparing acquiescence sets " (Op. Cit., p.50).

Peabody has, in addition to labeling the F Scale items as vague and ambiguous, (1966) also expressed serious doubt (1961) as to whether it is possible

strictly to "translate" the complex and subtle assertions of the scale from English into another language. But as Manaster and Havighurst point out, (1972 p.51) the F Scale has been translated and employed with adequate results (e.g. Melikian, 1959; Colodarci, 1959; Meade and Whittaker, 1967) and therefore translation seems possible.

Considerable research effort has also been expended in trying to find out if the F Scale is a measure only of authoritarianism of the right or whether it can also identify authoritarianism of the left (Coulter, 1953; Christie, 1956; Eysenck, 1954; and Rokeach, 1960). Brown (1965, p.542) concludes his analysis of this issue by claiming that it has not been demonstrated that the extreme rightist and the extreme leftist resemble one another in authoritarianism, or in any other dimension of ideology. The California F Scale is therefore taken to measure authoritarianism of the right.

Christie's interpretation of responses on the F Scale is that it taps, among other things, a diffuse hostility towards others, a moralistic judging attitude toward them, and a propensity for right-wing political ideology (Christie and Geis, 1970, p.38).

"In spite of a number of possible problems demanding special care in translation and interpretation,

and changes to eliminate or analysis to assess response set accompanying the use of the F Scale," Manaster and Havighurst conclude, "... the cross-national arena seems particularly suited for study with this instrument " (1972, p.52).

The F Scale was administered under the neutral caption, "Public Opinion Questionnaire" in English. In the Norwegian version an equally neutral caption was used.

b. The Mach V Scale

The Mach V Scale purports to measure the degree to which a person believes that people in general are manipulable. No admittance of wanting or actually practicing manipulation is elicited with the instrument. However, it is inferred that agreement with such cynical views of human nature might go along with the emotional detachment and amoral attitude necessary for successful deception (Christie, 1970, p.83).

The scale was developed by Richard Christie in order to study the nature of individuals who are effective in manipulating others. The scale has its name after Niccolo di Bernardo Machiavelli, an author and power theorist who lived in Florence in the 16th century and whose authorship includes among others, the infamous books: The Prince and Discourses. Since the publications of these books, his name has come to

designate the use of guile, deceit, and opportunism in interpersonal relations. "Traditionally," Christie states, "the 'Machiavellian' is someone who views and manipulates others for his own purposes " (Christie and Geis, 1970, p.1).

Originally the scale was constructed by selecting items directly (with slight updating) from Machiavelli's essays. Some comments were reversed to avoid what Christie refers to as "wholesale agreement or disagreement " (Christie, 1970, p.82). In addition, some new statements which the scale constructors felt Machiavelli would have approved were invented (Op. Cit., p.82). Altogether 71 items, believed to be theoretically congruent with statements based on The Prince and Discourses, were constructed this way. Twenty of these items - 10 worded in a pro-Machiavelli and 10 in an anti-Machiavelli direction - were selected to make up a balanced scale that was to be called the Mach IV Scale.

In order to minimize the problem of social desirability, still another scale, The Mach V, was constructed using the same 20 items. The Mach V form of the scale is the one used in the present study.

Christie maintains that scores on Mach V reflect the willingness of respondents to agree with Machiavelli when their tendency to agree with socially undesirable statements is removed, (Christie and Geis,

1970, p.30) i.e., when the tendency to acquiescent response set is eliminated.

Using the scoring system advocated by Christie, (Op. Cit., pp. 30-32) the possible range of scores is from 40 to 160. Scored this way 100 is a theoretical neutral point, i.e., agreement and disagreement with the items balances out (Op.Cit., p. 33).

According to Christie, (1970, p.85, 86), "the High Machiavellian appraises a situation logically and cognitively rather than emotionally; and he tends to control the situation when possible. The cool syndrome is his trademark..... The High Machiavellian is an effective manipulator because his insensitivity to the other persons permits him to bull his way through." A summary of Christie's findings concerning Machiavellianism can be found in Exhibit 1.

The Mach tests have been used in translated forms with what seems to be adequate results (de Miguel, 1964; Oksenberg, 1967). Christie himself also seems to be quite confident in the usefulness of the tests as instruments in cross-national research. He states: "It is remarkable to me that the Mach tests seem simple enough and the meaning universal enough to be readily translated into other languages " (Christie, 1970, p.86).

The test was issued to the subjects under

EXHIBIT 1

CHARACTERISTICS OF MACHIAVELLIANISM
AND PERSONS SCORING HIGH ON THE MACH TESTS

1. Machiavellianism is not related to authoritarianism.

2. Machiavellianism is not related to respondents' occupational status or education, marital status, birth order, or most other demographic characteristics.

3. Machiavellianism among people seems to increase with increased cosmopolitanism.

4. High Machs do not do better than Low Machs on measures of intelligence or ability.

5. High Machs, though they are detached from others, are not assumed pathologically so.

6. High Machs are more likely to be in professions that primarily control and manipulate people.

7. High Machs are likely to come from urban rather than rural backgrounds.

8. Young adults have higher Mach scores than older adults.

9. Males are generally more Machiavellian than females.

Source: Richard Christie, "The Machiavellis Among Us," Psychology Today, Nov. 1970.

the neutral caption of "Opinion Survey" in the English version. A similarly neutral caption was also used in the Norwegian form of the test.

c. The Study of Values

The Study of Values (SOV) was originally

developed by G. W. Allport and P. E. Vernon and published in 1931. Continued study by the authors resulted in the Allport-Vernon-Lindzey Study of Values, a revision of the original Allport-Vernon Scale. This edition was published in 1951; a third edition followed in 1960. This third edition was the one used for the present study.

"The Study of Values," aims to measure the relative prominence of six basic interests or motives in personality: the Theoretical, Economic, Aesthetic, Social, Political, and Religious " (Allport, Vernon and Lindzey, 1960, p.3). The classification is based on a typology first advanced by Eduard Spranger in his book: Types of Men. Spranger maintained that a person is best understood by his interests and intentions rather than achievements. According to Spranger, the nature of their values distinguishes different people, and he summarized values in terms of the six major types mentioned above, each of which he considered to be a kind of idealized individual. Although Spranger believed that an individual could be characterized primarily in terms of a single value type, he also allowed for mixtures, an approach consistent with that used by the authors of the Study of Values (Psychology Today, 1972, p.401).

EXHIBIT 2

CHARACTERISTICS OF SPRANGER'S SIX TYPES

1. The Theoretical. The dominant interest of the theoretical man is the discovery of truth. His chief aim in life is to order and systematize his knowledge.

2. The Economic. The economic man is characteristically interested in what is useful. This type is thoroughly "practical" and wants education to be practical. He regards unapplied knowledge as waste. The economic attitude frequently comes into conflict with other values. In his personal life the economic man is likely to confuse luxury with beauty.

3. The Aesthetic. The aesthetic man sees his highest value in form and harmony. He regards life as a procession of events; and each single experience is judged from the standpoint of grace, symmetry, or fitness.

4. The Social. The highest value for this type is love of people[1]. The social man prizes other persons as ends, and is therefore himself kind, sympathetic, and unselfish.

5. The Political. The political man is interested primarily in power; whatever his vocation, he betrays himself as a "Machtmench."

6. The Religious. The highest value of the religious man may be called unity. He is mystical, and seeks to comprehend the cosmos as a whole, to relate himself to its embracing totality.

Source: Allport, Vernon, Lindzey, Manual Study of Values, Houghton Mifflin Company, Boston 1960.

[1] In the Study of Values it is the altruistic or philanthropic aspect of love that is measured.

Characteristics of the six types are summarized

in Exhibit 2.

The test is constructed in multiple choice form. In all there are 120 answers, 20 of which refer to each of the six values. The subject records his preference numerically by the side of each alternative answer. The test has been constructed in such a way that 40 is the average for any single variable. It should be noted that the scores are ipsative, i.e., the scale does not measure the absolute strength of each of the six values, but only their relative strengths. A high score on one value can be obtained only by reducing correspondingly the scores on one or more of the other values. Thus the measures of the six values are not independent of one another (Allport, Vernon, Lindzey, 1960). These facts must be taken into account when interpreting the scores and when employing statistical techniques.

The SOV has not been used extensively in cross-national research. One reason for this may be the problem of translating the items to maintain connotative equivalence. This has led Manaster and Havighurst to conclude (1972, p.63): "Study of Values is undoubtedly a valuable clinical and research instrument in the U.S. It would appear that an analogous instrument can be equally useful within other countries, but the number and magnitude of questions relative to establishing

linguistic and stimulus equivalence for items between cultures raises serious doubt about its usefulness for cross-national comparison." This rather negative position as to the usefulness of the scale for cross-national comparison is no doubt justified when it comes to using a direct translation of the instrument in very diverse cultures as in the case of the Nobechi and Kimura study. (1957) For nations that share very similar cultural, social, and religious values, however, this position seems to be unnecessarily condemning. It is the contention of this writer that, with the exercise of due caution when translating the instrument, it can be adequately used in cross-national comparative research provided that the cultures to be investigated are ostensibly similar.

The Study of Values is designed for and most appropriate for college students or for adults with higher-than-average educational background. This requirement is found to be met in both groups investigated in the present study.

d. The Edwards Personal Preference Schedule

According to the Manual (Edwards, 1959, p.5) the Edwards Personal Preference Schedule (EPPS) was designed primarily as an instrument for research and counseling purposes, to provide quick and convenient measures of a number of relatively independent normal

variables. The statements in the EPPS and the variables that these statements purport to measure, have their origin in a list of manifest needs proposed by Murray and his associates at the Harvard Psychological Clinic (Murray, et al., 1938). Also the variable names used in the schedule have been adopted from Murray.

Beginning with 15 needs drawn from Murray's list, sets of items whose content appeared to fit each of these needs were prepared. The inventory consists of 210 pairs of statements in which items from each of the 15 scales are paired with items from the other 14. The schedule employs a forced-choice technique, so within each pair, the examinee must choose one statement as more characteristic of himself. If, in each of the comparisons, the subject has chosen the statement for a given variable as being more characteristic of himself than the statements for the other variables, his score on this particular variable would be 28, which is the maximum score that can be obtained for any given personality variable in the inventory. In the same manner, in order to obtain a score of 0 on any of the 15 variables, the subject would always have to regard the statements for this variable, in the 28 comparisons in which it appears, as being less characteristic of himself than the paired statements for the other variables (Edwards, 1959, p.9).

The EPPS utilize several ingenious internal checks (Anastasi, 1968, p.452). To provide a measure of test consistency, 15 pairs of statements are repeated in identical form. A consistency score of 12, for example, means that the respondent has made identical choices in 12 of the 15 pairs. The test also provides a measure of profile stability.

As was the case with the Study of Values, also the EPPS employs ipsative scores. Thus the strength of each need is expressed, not in absolute terms, but in relation to the strength of the individual's other needs; and, as Anastasi points out, (1968, p.453) one must bear in mind that under ipsative conditions, two individuals with identical scores on the EPPS may differ markedly in the absolute strength of their needs. Because of this ipsative nature she questions the conversion of EPPS scores to normative percentiles, and she contends that the combination of normative and ipsative frames of references makes interpretation of these scores "somewhat confusing." (Op. Cit., p.454). Certainly, due caution should be exercised in applying statistical techniques to ipsative scores.

In the EPPS an attempt is made to minimize the influence of social desirability in response to the statements. To this effect the pairs of statements comprising the items of the EPPS have been matched with

respect to their social-desirability scale values, insofar as possible (Edwards, 1959, p.22). According to Anastasi (1968, p.459), research with the instrument since its publication indicates "that the influence of SD [social desirability] may have been reduced but was certainly not eliminated."

In interpreting the scores it should also be borne in mind that some researchers have reported that EPPS responses can be faked to create the desired impressions, especially for specific purposes (Borislow, 1959; Dicken, 1959).

The definite strength of the EPPS, as far as the present writer is concerned, is the fact that it's unlike many other personality inventories, purports to measure normal personality variables. The 15 personality variables in the EPPS with a short characteristic description is given in Exhibit 3.

The EPPS has been used in cross-cultural or cross-national research (e.g. Ghei, 1966; Berrien, 1966; Tarwater, 1966; Shaffer, 1968; Johnson, 1969; and Wheeler, 1969) but not extensively so. The actual translation of the statements should not prove to be a major obstacle to such a use of the schedule. It is more likely that the aspect of social desirability works to some extent to prevent extensive use of the schedule in cross-national comparison. It is necessary to assume

EXHIBIT 3

EPPS PERSONALITY VARIABLES
WITH
DESCRIPTION OF CHARACTERISTICS

1. Achievement. To accomplish something difficult, something that requires skill and effort.

2. Deference. To admire and support a superior and accept his leadership.

3. Order. To put things in order and keep order around oneself.

4. Exhibition. To make an impression and get attention.

5. Autonomy. To be independent, to be free to make own decisions and to shake off restraints.

6. Affiliation. To adhere and remain loyal to friends and do things together with friends.

7. Intraception. To show empathy and to try to understand the motives of others.

8. Succorance. To seek sympathy and encouragement from others.

9. Dominance. To be a leader, to control one's human environment.

10. Abasement. To feel guilty, to feel inferior and to submit passively to external forces.

11. Nurturance. To assist others, to give sympathy to others less fortunate.

12. Change. To experience novelty and change, to experiment and try new things.

13. Endurance. To complete any job undertaken, to avoid being interrupted.

14. Heterosexuality. To form and further social (and erotic) relationships with persons of opposite sex.

15. Aggression. To attack contrary points of view, to overcome opposition forcefully.

Source: EPPS Manual (Rev.ed.) N.Y.: Psychological Corporation

that the translated pairs of statements maintain their equality in social desirability. This seems to be very much the case with the EPPS in a Norwegian translation. Lovaas (1958) did a study on social-desirability ratings of personality variables by Norwegian and American college students using the statements from the EPPS in a translated version with the Norwegian group. He found that the Americans rated the statements pertaining to Order, Intraception and Abasement as more socially desirable than did the Norwegians. The Norwegians, on the other hand, rated the statements pertaining to Aggression as more socially desirable than did the Americans. His findings led him to conclude (p.124): "The author feels that the paper-and-pencil test approach, even with a translated version of the test, is feasible for cross-cultural studies - provided the test points to specific observable behaviours, as does the (E)PPS."

e. The Least Preferred Coworker Scale

According to Fiedler and Chemers (1974) the Contingency Model, according to which the performance of a group is contingent upon both the motivational system of the leader and the "situation favorableness" to that system, is today one of our best validated leadership theories. (p.89)

The personality measure which is the key variable in the contingency theory is the Least

Preferred coworker (LPC) score. It is obtained by asking the subject to describe the person with whom he could work least well, his "least preferred coworker" (Op. Cit., p.73)

The scale is bipolar and normally consists of 16 items. Each item of this bipolar scale is scored from one to eight, with eight as the most favourable point on the scale. The LPC-score is the sum of the item scores. Thus 128 is the highest total score obtainable and 16 the lowest possible. If mean item scores are used, eight would be the highest theoretical mean possible and one would be the lowest. It is inferred from Fiedler (1967, p.44) that mean LPC scores of 2.2 and lower would be classified as low-LPC, and that mean scores of 4.1 or higher would be classified as high-LPC.

A low LPC score indicates that an individual is inclined to reject completely a person with whom he cannot work well. A highly rejective description indicates a very strong emotional reaction and not merely the calm and reasonable judgment of a detached observer. Higher or a more positive score indicates willingness to perceive even the worst coworker as having some reasonably positive attributes and, according to Fiedler and Chemers, reflects more than simple objective judgment. "The high LPC person who sees both good and bad points in his least-preferred coworker, takes a much more

analytical point of view which suggests a greater concern with knowing even those with whom he cannot work " (Op.Cit., p.74).

It has proved to be very difficult to develop an adequate and readily supportable interpretation of the LPC score. The score does not measure attributes which correlate with the usual personality and ability tests or with attitude scales (Fiedler, 1967, p.45). However, "It now appears that LPC is an index of a motivational hierarchy, or of behavioral preferences, implying that some goals are more important to the individual than others " (Fiedler and Chemers, 1974, p.74).

The high LPC person has as his basic goal the desire to be "related," i.e., to form and maintain successful interpersonal relationships. If this basic goal is achieved, he will also seek, as his secondary goals, status and esteem. He will want to be admired and to be recognized (Fiedler, 1972).

The low LPC person, on the other hand, has a different hierarchy of goals. His basic goal is to accomplish the task - he is task-oriented. If this goal is accomplished or well in hand, he will seek to establish friendly and pleasant relationships with his co-workers.

Although considerable controversy has been generated by Fiedler's theory and the use of the LPC.

Scale, (e.g. Graen et al., 1970; Chemers and Skrzyped, 1972; and Ashour, 1973) the LPC seem to provide a simple and easily-administered instrument that has proved useful in several cross-national studies.

B. A NOTE ON TRANSLATION

1. General

Both English and Norwegian are classified as belonging to the Germanic branch of the Indo-European language family tree. Although Norwegian is a North Germanic language and English belongs to the West Germanic group, the similarities in structure and syntax are many. Further, the culture of the countries which use and influence the development of the English language (e.g. Great Britain and U.S.A.) is not strikingly different from the Norwegian culture on the ostensible level. These factors facilitate translation from English into Norwegian. However, the pitfalls are many. Special attention has to be given to the fact that many words may be the same and have the same origin in the two languages while the modern meaning and usage of the two words may not be the same. Common sayings and adages can rarely be given literally word-for-word translations.

In translating the instruments for the present study a policy of strict correctness of literal translation was followed, wavering from this principle only in

cases where stimulus equivalence or comparability in meaning was at stake. Back-translation was used only for a few items. In the majority of cases the investigator used his own judgment as a criterion for deciding upon stimulus equivalence.

The translated versions of the tests were examined by two adult compatriots; one of them was an officer of the Royal Norwegian Navy and as such representative of the group in which the tests were going to be used. If ambiguities were discovered or doubt as to the adequacy of the translations arose during the examination, the investigator worked together with the examiners to perfect the translation.

2. Specific Problems

The recurrent problem in translating all five test instruments was, no doubt, that of obtaining realistic wording of the test items. In some cases extreme care had to be taken in order to maintain stimulus equivalence and avoid unrealistic and even silly wording in the Norwegian version. In cases where two alternative translations were judged idiomatically equivalent, the one that sounded more realistic in Norwegian was selected.

As would have been expected, the LPC Scale caused few problems in translation. Likewise, the translation of the EPPS, though lengthy, proved not to be

extraordinarily difficult. The California F Scale and the Mach V scale contain some absolutisms which sound quite extreme and silly in Norwegian. However, with great care it was possible to achieve very close and adequate translations.

The by far most difficult instrument to translate was the Study of Values. Great care had to be exercised in order to maintain connotative equivalence in the test items. The instrument contains several items which refer to institutions in the U.S. or else are well known in the U.S.; and as Manaster and Havighurst point out, "the question is not whether political institutions or art objects [that are] well known exist in other cultures, but whether their value for the population is equally dictated in importance or type " (1972, p.63). Fortunately, the ostensible similarities between the basic U.S. culture and the Norwegian culture in this respect are rather many, so in most cases a direct translation was found to suffice. In other cases the test items had direct reference to the U.S.A., e.g. naming a particular newspaper; in such cases an adoption of the Norwegian equivalent was necessary.

C. SUBJECTS AND ADMINISTRATION

1. The U.S. Sample

Within the two national groups, specific rather than random samples were investigated.

For the U.S. group, measurements on four of the five instruments had been obtained from student officers at the U.S. Naval Postgraduate School (NPS) during 1972, 1973, 1974, and 1975.[1] The bulk of these data stemmed from first term Social Science classes in 1974-1975 and 1972. The Study of Values was administered to three classes of NPS students in the autumn of 1975.

The main student body of the NPS comprises U.S. and allied military officers. The most frequently held ranks by the student officers are Navy Lieutenant and Lieutenant Commander or equivalent for other branches of service. Higher and lower ranks are much less frequent.

For the purpose of the present study, international officers and some civilians were excluded from the sample. Also, since Norway, so far, does not include females in the normal military rank structure, as do the U.S., the U.S. woman officer students also had to be excluded from the sample. The U.S. sample includes some P.O.W.'s.

In all, 307 U.S. cases were examined. Measurements on all of the instruments were not available for all cases, so the resulting sample sizes for the five instruments were as follows: California F Scale, n=234;

---

1 The author wishes to express his thanks to Professor John D. Senger, U.S. Naval Postgraduate School, for making data which he had gathered available for this study.

Study of Values, n=35; Edwards Personal Preference Schedule, n=163; Mach V, n=153; and LPC Scale, n=142.

2. The Norwegian Sample

Student officers at the norwegian Military Staff Colleges were found to compare well with the U.S. group. Both groups have a similar rank and age structure. They also have similar educational as well as professional backgrounds. In addition, both groups of officers were under education - i.e., in a school situation - when being tested.

It was therefore decided to select this group of Norwegian military officers to represent Norway in the present study.

Test batteries, composed of translated versions of the instruments, were put together in separate sealable envelopes and air-mailed to the Norwegian Military Headquarters in Oslo, which undertook the administration of the batteries at the three Staff Colleges (Army, Air Force and Navy).

Brief explanatory instructions to the testees were printed on the outside of the envelopes. No time limits had been fixed, but the instructions contained suggested, liberal time frames for the different instruments in the battery. To be able to ensure the subjects of complete anonymity, no names, only ranks were asked for. Further, the subjects were to seal the envelopes

before they handed them back to the test administrator.

The test batteries were then mailed back to the NPS for scoring and analysis. Thirty test batteries were returned, but only 24 cases had one or more instruments fully completed. The resulting useable sample sizes for the Norwegian group on the different instruments were: California F Scale, n=21; Study of Values, n=21; Edwards Personal Preference Schedule, n=18; Mach V Scale, n=21; and the LPC-Scale, n=21.

IV. RESULTS AND DISCUSSION

A. RESULTS AND DISCUSSION

1. General

The completed forms for both samples were hand-scored by the investigator himself. The scores were coded and punched on cards for further statistical analyses. No particular difficulties were encountered during this phase of the study. Three subjects in the U.S. group were found to have a consistency score of less than nine on the EPPS (see Edwards, 1959 p.16) and were excluded from the sample.

For the California F Scale and the LPC Scale, mean scores were used rather than total scores. The Mach V Scale was scored according to the procedure described by Christie and Geis (1970, pp. 30-33).

Statistical analyses of the data were performed

by means of programmes contained in Statistical Package for the Social Sciences (SPSS), (Nie et. al., 1975).

2. Results Obtained From the California F Scale

Mean F scores and standard deviations for the two groups are shown in Table 1. As will be seen, the mean scores for both groups are, in absolute terms, on the equalitarian side of the theoretical neutral point on the scale, which falls at 4.0. (See Brown, 1965, p.528). Whereas the mean score of the Norwegian group (3.57) is significantly larger ($p=.024$)[1] than the mean for the U.S. group (3.29), however, the variance for the U.S. group was found to be larger than the variance

TABLE 1

NATIONAL DIFFERENCES
MEAN F-SCALE SCORES AND STANDARD DEVIATIONS
FOR U.S. AND NORWEGIAN GROUPS

Group	N	Mean	Standard Deviation
U.S. Officers	234	3.29	0.76
Norw. Officers	21	3.57*	0.51

*This mean is significantly larger (at the .05 level) than the mean of the U.S. group.

for the Norwegian group. An F-test showed this difference between variances to be significant at the .05 level

1 Two-tailed t-test probability.

(p=.033). So, in performing the t-test, an approximation to z based on separate variance estimates for the two populations had to be used (see Nie et al., 1975, p.270).

The result of this test, too, does not support the hypothesis that there is no difference between the two groups, and thus H_0 has to be rejected in this case.

If the higher Norwegian score had been a result of a national tendency to acquiesce to a greater extent than the U.S. subjects, one might expect higher extreme values in the Norwegian data. This is not the case. The maximum F score for any individual in the Norwegian sample is 4.43, which compares with 5.36 in the U.S. sample. While the possible effect of acquiescence set cannot be overlooked, one is inclined to conclude that the difference in mean F score is due to national or cultural differences. This result seems to be consistent with what other cross-national studies have shown (e.g. Meade and Whittaker, 1967; and Melikian, 1959), namely that U.S. subjects score lower on the F Scale than do subjects from other cultures and/or nations.

3. Results Obtained From the Mach V Scale

Results obtained from the Mach V Scale are summarized in Table 2.

TABLE 2

NATIONAL DIFFERENCES
MEAN MACH V SCORE AND STANDARD DEVIATIONS
FOR U.S. AND NORWEGIAN GROUPS

Group	N	Mean	Standard Deviation
U.S. Officers	153	101.61	8.91
Norw. Officers	21	100.14	8.59

The means for the two groups are almost identical and very close to the theoretical neutral point of 100. This result is very much in support of the hypothesis that there is no difference in Machiavellianism, as measured by Mach V, between the two groups. Therefore, the H_0 cannot be rejected in this case.

The very nature of this result - the almost equal mean and very close variance in the two groups - is taken to be indicative of the adequacy of the translated version of the Mach V Scale, and it lends support to Christie's contention that the scale can readily be translated into other languages (Christie, 1970, p.86).

4. Results Obtained From the Study of Values

Mean scores and standard deviations for the two groups on the Study of Values variables are summarized in Table 3.

TABLE 3

NATIONAL DIFFERENCES
MEAN SOV SCORES AND STANDARD DEVIATIONS
FOR US AND NORWEGIAN GROUPS

Values	U.S. Group		Norw. Group	
	Mean	St.d.	Mean	St.d.
Theoretical	42.60	5.98	43.14	5.10
Economic	44.43	8.07	48.24	6.43
Aesthetic	38.14	7.28	39.76	7.09
Social	36.66	6.08	37.38	7.65
Political	43.91	7.12	43.52	5.97
Religious	34.17*	9.79	27.31	9.31

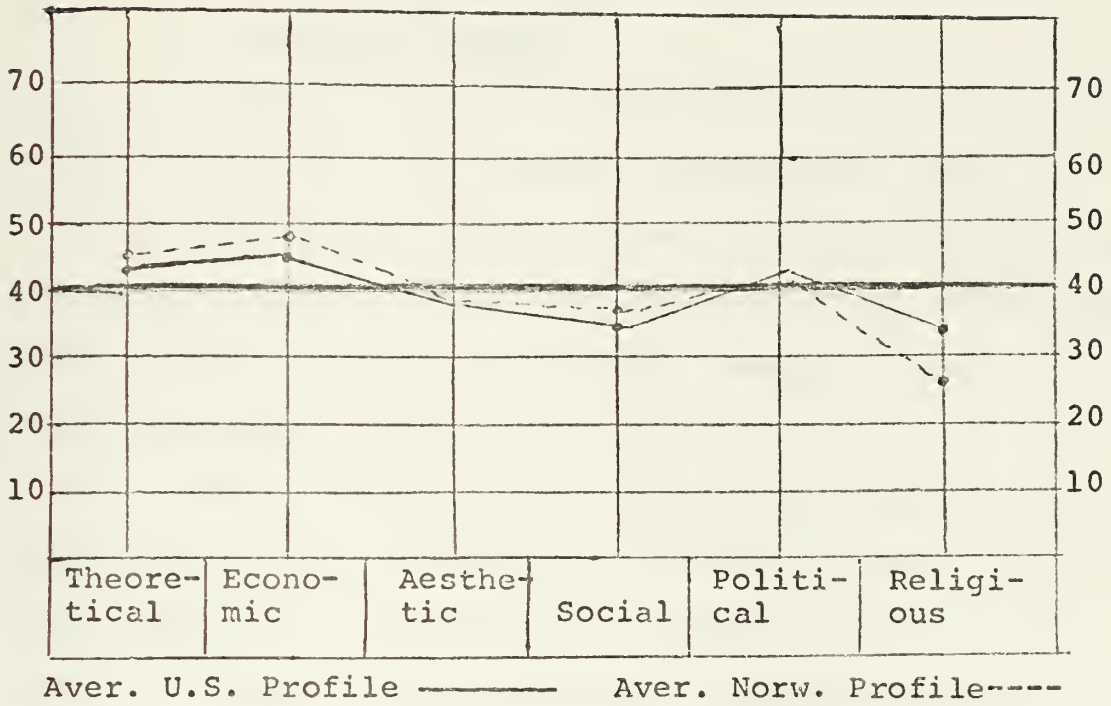
*This mean is significantly larger (at the .05 level) than the corresponding mean for the Norwegian group.

As will be seen, there were no significant differences between the two groups on five of the six dominant interests in personality which the instrument purports to measure. Thus the null hypothesis is supported with respect to the theoretical, economic, aesthetic, social, and political variables. On the religious variable the mean obtained by the U.S. group (34.17) is significantly higher (at the .05 level) than the corresponding mean (27.31) for the Norwegian group. The H_0 must therefore be rejected for this variable.

Exhibit 4 shows the average profiles of Values for the two groups.

EXHIBIT 4

PROFILE OF VALUES
FOR US AND NORWEGIAN GROUPS



The unexpected close resemblance of the two profiles is taken to be more than a result of chance, and it has convinced this investigator that the translated version of the SOV adequately measures what it purports to measure. The observed difference, therefore, is seen as a real difference in Religious values, as measured by the SOV, between the two groups. It may be that this difference is a result of the fact that Norwegians very infrequently get involved in church-related matters as compared to Americans, who have to

maintain their own churches. (The main Church in Norway - The Church of Norway - is a state church.) At any rate, the difference seems to be there, and any attempt to explain it based on the available data can only amount to speculation.

5. Results Obtained From the Edwards Personal Preference Schedule

Mean scores and standard deviations for the two groups on the EPPS variables are summarized in Table 4.

The table shows that the U.S. group scored significantly higher than did the Norwegian group on Achievement (p=.013), Exhibition (p=.003), Change (p=.001), and Heterosexuality (p=.002).

The Norwegian group scored significantly higher than the U.S. group on Deference (p=.015), Order (p=.024), Nurturance (p=.016), Endurance (p=.009), and Aggression (p=.031). Thus on these variables the hypothesis that there is no difference must be rejected.

For the following variables the test failed to reject the null hypothesis: Autonomy, Affiliation, Intraception, Succorance, Dominance, and Abasement.

Similar results were reported in cross-cultural studies by Ghei (1966) and Wheeler (1969). Using EPPS to investigate groups of students from India and Western Australia, respectively, both investigators found that U.S. males scored significantly higher on Exhibition and Heterosexuality than did their comparison groups.

TABLE 4

NATIONAL DIFFERENCES
MEANS AND STANDARD DEVIATIONS OF
THE EPPS VARIABLES
FOR US AND NORWEGIAN GROUPS

Variable	U.S. Group		Norw. Group	
	Mean	St.d.	Mean	St.d.
1. Achievement	18.58*	4.23	16.00	3.36
2. Deference	11.47	3.75	13.72*	3.12
3. Order	12.57	4.63	15.22*	5.15
4. Exhibition	14.40**	3.97	11.50	2.94
5. Autonomy	13.93	4.44	15.17	3.60
6. Affiliation	12.42	4.40	11.11	3.86
7. Intraception	12.94	4.54	12.17	3.52
8. Succorance	8.75	4.16	10.61	3.11
9. Dominance	19.79	4.25	19.17	5.04
10. Abasement	9.67	5.09	9.44	3.55
11. Nurturance	10.83	4.83	13.72*	4.15
12. Change	17.37**	4.79	13.56	3.90
13. Endurance	15.73	4.92	19.00**	5.71
14. Heterosexuality	18.35**	5.23	14.06	6.99
15. Aggression	13.14	4.53	15.56*	3.81
Consistency Score	12.40	1.66	12.39	1.46
N	163		18	

*This mean is significantly larger (at the .05 level) than the corresponding mean for the opposite group.

**This mean is significantly larger (at the .01 level) than the corresponding mean for the opposite group.

Both the Indian and the Australian groups, like the Norwegian group, scored significantly higher than did their U.S. comparison groups on Order and Endurance. Also, the Australian males, like the Norwegians, scored higher on Aggression than the U.S. group. These results lend support to the belief that the translated version of the schedule is adequately measuring what it purports to measure and thus that the differences found may reflect real cultural differences between the two groups. That the U.S. subjects score high on Exhibition, Heterosexuality and Achievement and low on Order, Endurance, Aggression and Deference compared to the non-U.S. groups appears to be a consistent finding.

6. Results Obtained From the Least Preferred Coworkers Scale

The results obtained from the Least Preferred Coworkers Scale (LPC) are shown in Table 5.

TABLE 5

NATIONAL DIFFERENCES
MEAN LPC-SCORE AND STANDARD DEVIATIONS
FOR US AND NORWEGIAN GROUPS

Group	N	Mean	Standard Deviation
U.S. Officers	142	3.73	0.81
Norw. Officers	21	3.77	0.49

Note: Although the means are almost identical, an F-test showed the variances to be significantly different (p=.013). Therefore, when performing the t-test, an approximation to z based on separate variance estimates was used.

As will be seen, the means are almost identical and not high enough to be classified as High-LPC. Both means fall in between the High and Low categories. The two groups may be seen to represent leadership styles which are neither task-nor relation-oriented. The scores indicate, however, that they are both closer to the latter leadership style than to the former. Generally, it is more difficult to interpret LPC scores which fall in the "between" group. Nevertheless, since the means showed no significant difference the H_0 cannot be rejected.

Although the means were almost identical, an F-test showed the variances to be significantly different, the U.S. sample showing the greater variance.

V. ANALYSIS OF RESULTS

A. ANALYSIS

1. General

A two-culture study can only be a descriptive comparison (Manaster and Havighurst, 1972, p.159), and the goal of analysis is the description of variables in both cultures and a comparison of how they are similar or different.

Certainly, in the present case neither the sampling procedure nor the data obtained allow any attempt to describe American and Norwegian personality organization. Nor has it been judged possible to explore further relationships between observed personality structures and certain aspects of the sociocultural environment in the two countries under consideration.

Nevertheless, some of the obtained results are worthy of further analysis as to what these findings might signify and/or what their implications might be.

2. Analysis of Specific Results

The present finding that the U.S. group scored lower than the Norwegian group on the F Scale is in accordance with results reported in other cross-national studies (e.g. Melikian, 1959; and Meade and Whittaker, 1967) and appears to indicate that authoritarianism as measured by the F Scale is not a

prominent personality trait in different groups of Americans as compared to non-U.S. groups.

On the Mach V scale both groups obtained almost identical scores - the U.S. group scoring insignificantly higher than the Norwegian group. Since the two groups obtained significantly different scores on the F Scale and since the Norwegian group, which had the higher scores on the F Scale, scored lower on the Mach V Scale, it appears as if Machiavellianism and Authoritarianism are different and unrelated orientations. This is also the conclusion that Christie draws from research in the field (1970, p.82). He contends that there is a basic philosophical difference between these two orientations: "The moralistic authoritarian says, 'People are no damn good but they should be'; the Machiavellian says, 'People are no damn good, so why not take advantage of them?'" (Op. Cit., p.83). In this study, however, it does not seem justified to classify either group as either authoritarian or Machiavellian in absolute terms.

The results obtained on the SOV were surprisingly similar. The Norwegian group scored slightly higher on all but two of the variables. The Norwegian score on the Religious value was not only significantly lower than that of the U.S. group, but it also must be considered 'definitely low,' i.e., this score is outside

of 50% of all male scores on that value in the U.S. normative sample (see Study of Values: Test Booklet, p.12). The score on the Economic value for the Norwegian group, although not significantly larger than the corresponding mean for the U.S. group, falls in the 'definitely high' category, i.e., this score falls outside the range of 50% of all male scores in the U.S. normative sample (Op.Cit., p.12).

On the EPPS the Norwegian group scored higher (in absolute terms) than the U.S. group on Deference, Order, Autonomy (not significantly), Succorance (not significantly), Nurturance, Endurance, and Aggression.

The higher score on both Deference and Autonomy is somewhat puzzling. It may represent a manifestation of "rugged individualism" in which autonomy is fundamental but not necessarily antagonistic to authority.

The Norwegian group score on Endurance is high relative to that of the U.S. group, but not in absolute terms; and compared to the general normative sample for male adults for EPPS, this score is only in the 67th percentile (see Edwards, 1959, p.13). The U.S. group score on this variable is found to be remarkably low and, compared to the normative sample of adult males falls only in the 37th percentile. In the Norwegian military environment endurance is a highly cherished

quality, and the present reward structure may well be geared toward reinforcing this need. This possibility may, to some extent, explain the much higher score by the Norwegians on this variable.

The relative high score on the Aggression variable obtained by the Norwegian group could represent a general tendency to cantankerousness, but it may also reflect social desirability. As reported by Lovaas (1958, p.124), the Norwegians rated EPPS statements pertaining to aggression as more socially desirable than did the Americans.

The U.S. Achievement score is relatively very high. Compared to the normative sample of adult males, this score falls in the 81st percentile. The score on Exhibition for the same group falls in the 66th percentile (Edwards, 1959, p.13). The reward structure in the U.S. society seems to reinforce these two needs, and consequently U.S. groups typically score higher than non-U.S. groups on these variables (e.g. Ghei, 1966; and Wheeler, 1969). The corresponding lower scores on these variables for the Norwegian group may be related to pressures towards conformity in a professedly egalitarian society. Norwegians are expected to be ordinary; to be different is very much considered an affectation.

The U.S. score on Change falls in the 76th

percentile of the normative group. It seems plausible to assume that the Armed Forces in the U.S. with its rotation system, will attract people who are motivated by change. In the Norwegian military people tend to be more reserved as to the 'blessings' of the rotation policy. On the whole, U.S. society appears to be much more 'mobile' than is the case for Norway. The acceptance of mobility as a positive value by U.S. officers may be what is being reflected in the higher U.S. score on the Change variable.

The Heterosexuality score for the U.S. group falls in the 80th percentile of the normative sample for adult males, while the Norwegian score falls in the 66th percentile (Op.Cit., p.13). Based on the available data no plausible reason for the typically high U.S. scores on this variable can be given.

The almost identical mean score for the two groups on the LPC-variable can only be seen as indicative of the similarities which may exist between the two groups in this respect.

3. Caveats

Some interesting differences have been registered between the two groups, but striking similarities showed up, too.

Extreme care should be exercised in interpreting these results. The differences found could be

the result of the sampling procedure and other factors not fully controlled in this study. Although culturally-bound response sets and social-desirability factors were assumed to operate equally in the two groups, their possible differential effect on the results cannot be overlooked.

Using translated instruments always introduces the question of validity. The results obtained in this study are taken to indicate that the present translations of the instruments used were adequate and that the validity of the original instruments has been maintained. However, only thoroughly performed validity checks of the translated instruments can fully settle this issue.

VI. SUMMARY AND CONCLUSIONS

A. SUMMARY

The California F Scale, the Mach V Scale, the Study of Values, the Edwards Personal Preference Schedule, and the Least Preferred Co-worker Scale were given to a group of male Norwegian military officers (24 cases). The results obtained on the 25 variables that the battery comprised were compared with the results obtained on the same instruments from groups of male U.S. military officers (307 cases).

The U.S. officers were found to score significantly higher (at the .05 level) on Religious values as measured by the Study of Values than did the Norwegian group.

The U.S. group also scored significantly higher on Achievement, Exhibition, Change, and Heterosexuality, as measured by the EPPS.

The Norwegian group was found to score significantly higher than the U.S. group on Authoritarianism, as measured by the F Scale. The Norwegian group also scored significantly higher than the U.S. group on Deference, Order, Nurturance, Endurance, and Aggression, as measured by the EPPS.

Results obtained from the Mach V Scale and the LPC Scale showed almost identical mean scores.

B. CONCLUSIONS

In spite of its methodological shortcomings, this study has provided reason to believe that, even in cultures so similar in many ways as are the basic U.S. and Norwegian cultures, significant differences in personality traits, attitudes and interests may exist. These differences probably account to a certain extent for national or cultural personality characteristics. As such, these differences are ones to understand and know about rather than eliminate or suppress.

A better understanding and greater knowledge of what may be termed a "national personality" might perhaps add more to the betterment of relations and communications among and between nations and their peoples than the common approach to cross-national understanding in which the only concern is with observing the mere artifacts of a culture or nation.

This subject area opens up wide fields for interesting research. Further analyses of these phenomena should include larger samples, different kinds of psychological tests, perhaps anthropological types of observational data gathering, and military-non-military contrasts.

BIBLIOGRAPHY

Adams, H. L., Mason, E.P., and Blood, D.F. (1970), "Personality Characteristics of American and English, Bright and Average College Freshmen,""Psychological Reports, 26(3): Je '70, pp. 831-4.

Adorno, T.W., and others, (1950), The Authoritarian Personality, New York: Harper, 1950.

Allport, G.W., Vernon, P.E., and Lindzey, G., (1960), Manual: Study of Values, 3rd ed., Boston: Houghton-Mifflin, 1960.

Almond, G.A., and others, (1954), The Appeals of Communism, (Princeton, N.J.): Princeton University Press, 1954.

Anastasi, A.(1968), Psychological Testing, 3rd ed., New York: MacMillan Publishing Co., Inc. 1968.

Ashour, A.S. (1973), "The Contingency Model of Leadership Effectiveness: An Evaluation," Organizational Behavior and Human Performance, 9(No3) June 1973, pp. 339-55.

Bass, B.M. (1955), "Authoritarianism or Acquiescence?", Journal of Abnormal and Social Psychology, 51, 1955, pp.616-23.

Bernhardson, C.S., and Fisher, R.J. (1970), "Personality Correlates of Dogmatism: Methodological Problems," Abstract Journal of Consultant and Clinical Psychology, 34(3) Je '70, p.449.

Berrien, F.K. (1966), "Japanese and American Values," International Journal of Psychology, 1(2): 1966, pp.129-41.

Borislow, B. (1958), "The Edwards Personal Preference Schedule (EPPS) and fakability," Journal of Applied Psychology, 42, 1958, pp.22-27.

Breslin, R.W., Lonner, W.J., and Thorndike, R.M. (1973), Cross-Cultural Research Methods, New York: John Wiley and Sons, Inc., 1973.

Brollier, Ch. (1970), "Personality Characteristics of Three Allied Health Professional Groups," American Journal of Occupational Therapy, 24(7), O '70, pp. 500-5.

Brown, R. (1965), Social Psychology, New York: The Free Press, 1965, pp.423-546.

Chemeres, M.M., and Skrzyped, G.J. (1972), "Experimental Test of the Contingency Model of Leadership Effectivness," Journal of Personality and Social Psychology, Vol 24, No2, 1972, pp.172-77.

Christie, R. (1954), "Authoritarianism Re-examined," in R. Christie and Marie Jahoda, eds., Studies in the Scope and Method of the "Authoritarian" Personality, New York: Free Press, 1954.

-----. (1970), "The Machiavellis Among Us," Psychology Today, Vol. 4. No. 6. Nov 1970.

Christie, R., and Geis, F.L. (1970), Studies in Machiavellianism, New York: Academic Press, Inc., 1970.

Cohn, T.S. (1953), "The Relation of the F Scale to a Response to Answer Positively," American Psychologist, 8, p.335. (Abstract), 1953.

Coladarci, A. (1959), "The Measurement of Authoritarianism in Japanese Educators," California Journal of Educational Research, 10, 1959, pp.137-41.

Couch, A., and Keniston, K. (1960), "Yeasayers and Naysayers: Agreeing Response Set as a Personality Variable," Journal of Abnormal Social Psychology, 60, 1960, pp.151-74.

Coulter, T. (1953), "An Experimental and Statistical Study of the Relationship of Prejudice and Certain Personality Variables." Unpublished doctoral dissertation. University of London, 1953.

de Miguel, A., (1964), "Social Correlates of Machiavellianism: The Spanish Students." Mimeographed paper, 1964.

Dicken, C.F. (1959), "Simulated patterns on the Edwards Personal Preference Schedule," Journal of Applied Psychology, 43, 1959, pp.372-78.

Dielman, T.E., and Wilson, W.R. (1970), "Convergent and Discriminant Validity of Three Measures of Ability, Aspiration-Level, Achievement, Adjustment and Dominance," J.Ed.Meas. 7(3), f '70, pp.185-90.

Doorn, Jaques van, (Ed), (1968), Armed Forces and Society - Sociological Essays, Mouton & Co., N.V., Publishers, The Hague, 1968.

Edwards, A.L. (1957 a), Techniques of Attitude Scale Construction, Appleton-Century, 1957.

Edwards, A.L. (1957 b), The Social Desirability Variable in Personality Assessment and Research, New York: Dryden Press, 1957.

-----. (1959), Edwards Personal Preference Schedule: Manual (Rev.ed.) New York: Psychological Corporation, 1959.

Eysenck, H.J. (1954), The Psychology of Politics, London: Routledge and Kegan Paul, 1954.

Fiedler, F.E. (1965), "Engineer the Job to Fit the Manager," Harvard Business Review, Vol.45 (No5), Sept-Oct 1965, 119, pp.115-22.

-----. (1967), A Theory of Leadership Effectiveness, New York: McGraw-Hill Book Company, 1967.

Fiedler, F.E., and Chemers, M.M. (1974), Leadership and Effective Management, Glenview, Ill.: Scott, Foresman and Company, 1974.

Fujita, B. (1957), "Applicability of the Edwards Personal Preference Schedule to Nisei," Psychological Reports, 3, 1957, pp.518-19.

Ghei, S.N. (1966), "A Cross-Cultural Study of Need Profiles," Journal of Personal and Social Psychology, 3, My '66, pp.580-5.

-----. (1969), "Social Desirability and Probability of Endorsement of Personality Statements in Two Cultures," Abstract. Proc. 77th Am.Conv.Am.Psychol.Ass., 4(1), 1969, pp.421-2.

Graen, G., Alvares, K., and Urris, J.B. (1970), "Contingency Model of Leadership Effectiveness: Antecedent and Evidential Results," Psychological Bulletin, Vol. 74, No4, 1970, pp.285-96.

Green, B.F. (1954), "Attitude Measurement," in Handbook of Psychology, Vol. 1. Theory and Method, G. Lindzey, ed., Cambridge, Mass.: Addison-Wesley, 1954.

Guilford, J.P. (1954), Psychometric Methods, 2nd ed., New York: McGraw-Hill, 1954.

Gunderson, M.M. (1969), "Relationships Between Expressed Personality Needs and Social Background and Military Status Variable," The Journal of Psychology, 71(2), Mr '69, pp.217-24.

Hinrichs, J.R. (1969), "Comparison of 'Real Life' Assessments of Management Potential With Situational Exercises, Paper-and-Pencil Ability Tests, and Personality Inventories," Journal of Applied Psychology, 53(5): O '69, pp.425-32.

HJelle, L.A., and Aound, J. (1970), "Some Personality Differences Between Seminarians and Nonseminarians," Journal of Social Psychology, 82(2): D '70, pp. 279-80.

Hollander, E.P. (1954), "Authoritarianism and Leadership Choice in a Military Setting," Journal of Abnormal and Social Psychology, 49, 1954, pp.365-70.

Holtzman, W.H. (1965), "Cross-Cultural Research on Personality Development," Human Development, 8, 1965, pp.65-86.

Hornaday, J.A., and Bunker, Ch.S. (1970), "The Nature of the Entrepreneur," Personnel Psychology, 23(1), Sp '70, pp.47-54.

Johnson, S.W., and Stiggins, R.J. (1969), "A Cross-Cultural Study of Values and Needs," Acta Psychologica, 31(3), O '69, pp.277-84.

Juan, I.R., and Haley, H.B. (1970), "High and Low Levels of Dogmatism in Relation to Personality, Intelluctual, and Environmental Characteristics of Medical Students," Psychological Reports, 26(2), Ap '70, pp.535-44.

London, P. (1975), Beginning Psychology, Homewood, Ill.: The Dorsey Press, 1975.

Lovaas, O.I. (1957), "Social desirability ratings of personality variables by Norwegian and American college students," Journal of Abnormal and Social Psychology, 57, 1958, pp.124-125.

Maloney, M.P. (1968), "The Question of Achievement in the Japanese American: A Comment on Cross-Cultural Research," Psychologia, II, D '68, pp.143-58.

Manaster, G.J., and Havighurst, R.J. (1972), Cross-National-al Research: Social-Psychological Methods and Problems, Boston: Houghton Mifflin Company, 1972.

Meade, R.D., and Whittaker, J.O. (1967), "A Cross-Cultur-al Study of Authoritarianism," Journal of Social Psychology, 72, 1967, pp.3-7.

Melikian, L.H. (1958), "The Relationship between Edwards' and McClelland's measures of Achievement Motivation," Journal of Consult. Psychol., 22, 1958, pp.296-298.

-----. (1959), "Authoritarianism and Its Correlates in Egyptian Culture and in the United States," Journal of Social Issues, 15, 1959, pp.58-68.

Melvin, D. (1955), "An Experimental and Statistical Study of Two Primary Social Attitudes." Unpublished doc-toral dissertation, University of London, 1955.

Messick, S.J., and Jackson, D.N. (1957), "Authoritarianism or Acquiescence in Bass' Data," Journal of Abnormal Social Psychology, 54, 1957, pp.424-25.

Murray, H.A., and others (1938), Explorations in Person-ality, New York: Oxford University Press, 1938.

Nie, N.H., and others (1975), SPSS: Statistical Package for the Social Sciences, 2nd Ed., McGraw-Hill Book Company, 1975.

Nobechi, M., and Kimura, T. (1957), "Study of Values Applied to Japanese Students," Psychologia, 1, 1957, pp.120-22.

Nunnally, J.G. (1967), Psychometric Theory, New York: McGraw-Hill, 1967.

Oksenberg, L. (1967), "Machiavellianism in Traditional and Westernized Chinese Students." Unpublished Manuscript, Columbia University.

Peabody, D. (1961), "Attitude Content and Agreement Set in Scales of Authoritarianism, Dogmatism, Anti-sematism, and Economic Conservatism," Journal of Abnormal and Social Psychology, 63, 1961, pp.1-11.

-----. (1966), "Authoritarian Scales and Response Bias," Psychological Bulletin, 65, 1966, pp.11-23.

Psychology Today: An Introduction, (1972) 2nd ed., CRM Books, Del Mar, California, 1972.

Rokeach, M. (1960), The Open and Closed Mind, New York: Basic Books, 1960.

Scheuch, E.K. (1968), "The Cross-Culture Use of Sample Surveys: Problems of Comparability," in Comparative Research Across Cultures and Nations, ed. Stein Rokkan, Mouton, Paris - The Hague, MCMLXVIII, Ch. Xii, pp.176-209.

Shaffer, R.H., and Dowling, L.R. (1968), "Foreign Students and Their American Friends," Sch. & Soc., 96, Ap '68, pp.245-9.

Singer, M. (1961), "A Survey of Culture and Personality Theory and Research," in B. Kaplan (ed.), Studying Personality Cross-Culturally, New York: Row Peterson and Company, 1961, pp.9-90.

Sistrunk, F., and McDavid, J.W. (1965), "Achievement Motivation, Affiliation Motivation, and Task Difficulty as Determinants of Social Conformity," Journal of Social Psychology, 66, Je '65, pp.41-50.

Smith, B., and others (1967), Opinion & Personality, New York: John Wiley & Sons, Inc., 1967.

Spranger, E., Types of Man, Translated from 5th German edition of Lebensformen by Paul J.W. Pigors, Halle: Max Niemeyer Verlag. American Agent: Stechert-Hafner, Inc., 31 East 10th St., N.Y.3.

Swindell, D.H., and Liebermann, L.R. (1968), "Effect of Sex on the Correlation Between the Dogmatism Scale and the Edwards Personal Preference Schedule," Psychological Reports, 23, D '68, pp.893-4.

Tarwater, T.W. (1966), "Chinese and American Students' Interpersonal Values: A Cross-Cultural Comparison," J Col Stud Personnel, 7, N '66, pp.351-4.

Weinstein, M.S. (1969), "Achievement Motivation and Risk Preference," Journal of Personal and Social Psychology, Vol.13, No2, 1969, pp.153-72.

Wheeler, D.K. (1969), "Edwards Personal Preference Schedule and National Characteristics," Australian and New Zealand Journal of Sociology, 5(1), Ap '69, pp.40-7.

INITIAL DISTRIBUTION LIST

		No. Copies
1.	Defense Documentation Center Cameron Station Alexandria, Virginia 22314	2
2.	Library, Code 0212 Naval Postgraduate School Monterey, California 93940	2
3.	Department Chairman, Code 55 Department of Operations Research and Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
4.	Professor John D. Senger, Code 55Se Department of Operations Research and Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
5.	Professor R.A. Weitzman, Code 55Wz Department of Operations Research and Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
6.	Forsvarets Overkommando Sjoeforsvarsstaben Oslo Mil Huseby Oslo 1, Norway	3

Thesis
N5915
c.1

164929

Nilssen
U. S. and Norwegian military officers' personality traits, attitudes, values, and leadership styles: a cross-national comparison.

3 DEC 79
4 JANEO
18 JUN 84

26653
26645
26645
33099

Thesis
N5915
c.1

164929

Nilssen
U. S. and Norwegian military officers' personality traits, attitudes, values, and leadership styles: a cross-national comparison.

thesN5915
U.S. and Norwegian military officers' pe
3 2768 001 94696 5
DUDLEY KNOX LIBRARY